

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1.-33. (cancelled)

34. (currently amended) A catalyst comprising nickel, silica, alumina and magnesium, wherein the nickel to silicon atomic ratio is [[2]] 6.5 to 30, the nickel to aluminum atomic ratio is 9 to 40, and the nickel to magnesium atomic ratio is 5-75, and the nickel surface area is at least 75 m²/g of nickel, and wherein the catalyst is coated with a protective layer, effective in preventing oxidation of the catalyst.

35. (previously presented) The catalyst according to claim 34, having an average particle size of about 3 to about 8 µm.

36. (currently amended) The catalyst according to claim 34, wherein the nickel to silicon atomic ratio is at least 6.5, preferably 6.5 to about 22, more preferably 6.5 to about 15.

37. (currently amended) The catalyst according to claim 34, wherein the nickel to aluminum atomic ratio is about 10-35, preferably about 15 to about 22.

38. (currently amended) The catalyst according to claim 34, wherein the nickel to magnesium atomic ratio is about 5-50, preferably about 6 to about 20.

39. (previously presented) A method for preparing the catalyst according to claim 34, wherein

a nickel source, a silica source, an alumina source and a magnesium source are mixed in a liquid and co-precipitated therefrom to form a catalyst precursor,

the catalyst precursor is isolated from the solution, and

the catalyst precursor is activated to form the catalyst, the activation preferably comprising a reduction of at least part of the nickel content of the catalyst precursor, and optionally calcining the catalyst precursor before being reduced.

40.-42. (cancelled)

43. (new) The catalyst according to claim 34, wherein the nickel to silicon atomic ratio is 6.5 to about 15.

44. (new) The catalyst according to claim 34, wherein the nickel to aluminum atomic ratio is about 15 to about 22.

45. (new) The catalyst according to claim 34, wherein the nickel to magnesium atomic ratio is about 6 to about 20.

46. (currently amended) A catalyst comprising nickel, silica, alumina and magnesium, wherein the nickel to silicon atomic ratio is 6.5 to 30, the nickel to aluminum atomic ratio is 9 to 40, and the nickel to magnesium atomic ratio is 5-75, and the nickel surface area is at least 75 m²/g of nickel, and wherein the catalyst is coated with a protective layer, effective in preventing oxidation of the catalyst, said catalyst having an average particle size of about 1 to about 20 µm.

47. (new) The catalyst according to claim 46, having an average particle size of about 4 to about 7 μm .

48. (new) The catalyst according to claim 46, wherein the nickel to silicon atomic ratio is 6.5 to about 22.

49. (new) The catalyst according to claim 46, wherein the nickel to aluminum atomic ratio is about 10-35.

50. (new) The catalyst according to claim 46, wherein the nickel to magnesium atomic ratio is about 5-50.

51. (new) The catalyst according to claim 46, wherein the nickel to silicon atomic ratio is 6.5 to about 15.

52. (new) The catalyst according to claim 46, wherein the nickel to aluminum atomic ratio is about 15 to about 22.

53. (new) The catalyst according to claim 46, wherein the nickel to magnesium atomic ratio is about 6 to about 20.

54. (new) A method for preparing the catalyst according to claim 46, wherein a nickel source, a silica source, an alumina source and a magnesium source are mixed in a liquid and co-precipitated therefrom to form a catalyst precursor,

the catalyst precursor is isolated from the solution, and

the catalyst precursor is activated to form the catalyst, the activation preferably comprising a reduction of at least part of the nickel content of the catalyst precursor, and optionally calcining the catalyst precursor before being reduced.